

II. In the Claims

This version and listing of the claims replaces all prior versions and listings of the claims.

1. (currently amended) An insulation manufacturing system comprising:
a curing oven tower for heating an uncured or partially cured insulation mat, said curing oven tower comprising:
a plurality of vertical oven zones comprising heat sources;[[,]] and
a conveyor system disposed within said curing oven tower comprising a plurality of pairs of counter-rotating conveyors arranged disposed to move said mat through said plurality of vertical oven zones for curing, said mat being disposed between said counter-rotating conveyors.
2. (canceled)
3. (currently amended) The system of claim 1, wherein said conveyor system comprises rotating conveyors cooperating to move said insulation mat both horizontally and vertically within through said curing oven tower in a serpentine path.
4. (original) The system of claim 3, wherein said path vertically overlaps itself.
- 5-6. (canceled)
7. (original) The system of claim 1, further comprising recirculating means for recirculating air from a region proximate to the top of said curing oven tower to a region proximate to a bottom of said curing oven tower.
8. (currently amended) A method of curing insulation comprising moving an uncured or partially cured insulation mat through a curing oven tower, said curing oven tower comprising a plurality of vertical oven zones comprising heat sources, said moving step including the step of moving the insulation mat vertically within the curing oven tower through the plurality of vertical oven zones for curing.

9. (canceled)

10. (currently amended) The method of claim 8, wherein said moving step includes the step of moving said insulation mat both horizontally and vertically within ~~through~~ said curing oven in a serpentine path.

11. (original) The method of claim 10, wherein said path vertically overlaps itself.

12. (currently amended) The method of claim 11, wherein said moving step includes the step of conveying said insulation mat with a plurality of conveyors disposed to move said insulation mat both horizontally and vertically within ~~through~~ said oven tower.

13. (currently amended) The method of claim 12, wherein said plurality of conveyors comprises a plurality of pairs of counter rotating conveyors that cooperate to move said insulation mat within ~~through~~ said oven tower.

14. (original) The method of claim 8, further comprising the step of recirculating air from a region proximate to the top of said curing oven tower to a region proximate to a bottom of said curing oven tower.

15. (previously presented) The method of claim 8, wherein said insulation mat comprises glass fibers.

16. (currently amended) A insulation manufacturing system comprising:
a curing oven tower for heating an uncured or partially cured fiberglass insulation mat, said curing oven tower comprising:
a heat source; and
a conveyor system disposed within said curing oven tower comprising cooperable pairs of counter-rotating conveyors arranged for moving said insulation mat both vertically and horizontally within ~~through~~ said curing oven tower in a serpentine path.

17-19. (canceled)

20. (original) The system of claim 16, further comprising recirculating means for recirculating air from a region proximate to the top of said curing oven tower to a region proximate to a bottom of said curing oven tower.

21. (original) The system claim 16, wherein said serpentine path vertically overlaps itself.

22. (currently amended) A method of curing insulation comprising moving an uncured or partially cured insulation mat both horizontally and vertically in a serpentine path ~~through~~ within a curing oven tower comprising a heat source.

23. (currently amended) The method of claim 22, wherein said curing oven tower comprises a conveyor system disposed therein and arranged for moving said insulation mat both vertically and horizontally within ~~through~~ said curing oven tower, said moving step comprising the step of conveying said insulation mat with said conveyor system.

24. (currently amended) The method of claim 23, wherein said conveying step includes the step of conveying said insulation mat with a plurality of cooperable conveyors disposed to move said insulation mat both horizontally and vertically within ~~through~~ said oven tower.

25. (currently amended) The method of claim 24, wherein said plurality of conveyors comprises a plurality of pairs of counter rotating conveyors that cooperate to move said insulation mat within ~~through~~ said oven tower.

26. (original) The method of claim 24, wherein said serpentine path vertically overlaps itself.

27. (original) The method of claim 22, further comprising the step of recirculating air from a region proximate to the top of said curing oven tower to a region proximate to a bottom of said curing oven tower.

28. (previously presented) The method of claim 22, wherein said insulation mat comprises fiberglass.

29. (original) The method of claim 22, wherein said serpentine path vertically overlaps itself.

30. (currently amended) The system of claim 3, wherein a portion of said rotating conveyors cooperating to move said insulation mat vertically forms a nip zone within said curing oven tower with a portion of said rotating conveyors cooperating to move said insulation horizontally, said nip zone including at least one inclined belt for receiving said insulation mat.

31. (currently amended) The method of claim 22, wherein said uncured or partially cured mat is transported through a nip zone within said curing oven tower and formed between a horizontally disposed rotating conveyor and a vertically disposed rotating conveyor, said nip zone having a least one inclined belt for receiving said uncured or partially cured mat.

32. (currently amended) The insulation manufacturing system of claim 3, wherein at least some of the conveyors comprise spaced flights within the curing oven having perforations therein, thereby allowing heated air to pass through the flights.

33. (currently amended) The method of claim 13, wherein at least some of the conveyors comprise spaced flights within the curing oven tower having perforations therein, thereby allowing heated air to pass through the flights.

34. (previously presented) The insulation manufacturing system of claim 16, wherein at least some of the conveyors comprise spaced flights within the curing oven tower having perforations therein, thereby allowing heated air to pass through the flights.

35. (currently amended) The method of claim 25, wherein at least some of the conveyors comprise spaced flights within the curing oven tower having perforations therein, thereby allowing heated air to pass through the flights.

36. (new) An insulation manufacturing system, comprising:
a curing oven for heating an insulation mat, said curing oven comprising:
at least one heat source for heating a space within said curing oven defined between an entrance and an exit to said curing oven; and
a conveyor system disposed within said curing oven, said conveyor system arranged to define a path for said insulation mat to travel through said space, said path having at least one turn such that said path is longer than a distance between said entrance and exit of said curing oven.

37. (new) The insulation manufacturing system of claim 1, wherein said at least one turn comprises at least one vertical turn and at least one horizontal turn.